وزارة الصحة
Ministry of Health

رؤية VISION 2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA

RPP
Respiratory Protection Program

Prevention of Respiratory Hazards Through Engineering Controls

2022

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- Availability and Functioning of Airborne Infection Isolation Rooms (AIIRs)

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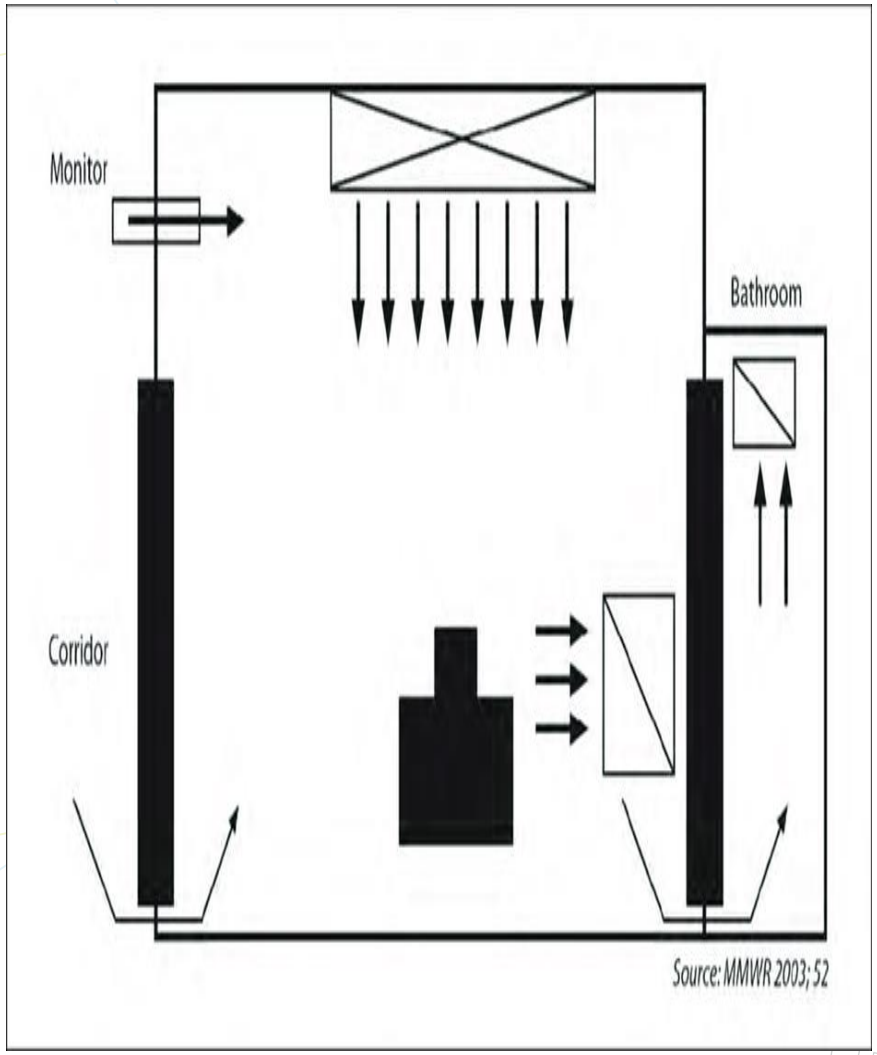
AIIR Specifications

AIIR is a single-occupancy patient-care room used to isolate patients **with** a suspected or confirmed airborne infectious disease.

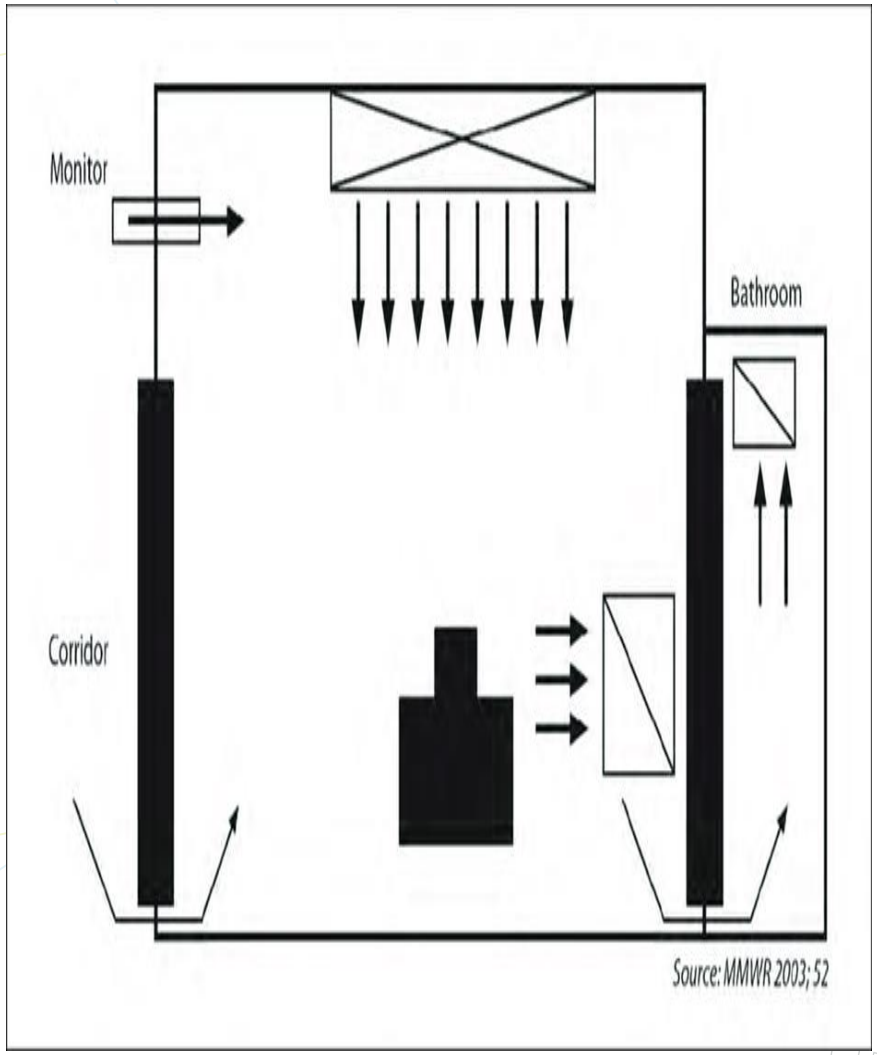
AIIRs **should be** clearly labelled with (-2.5) Pascal negative pressure in the room as a minimum which is continuously monitored by the fixed audio-visual monitor for an airflow rate of 12 air changes per hour (ACH) as a minimum and direct exhaust of air from the room to the outside of the building after being passed through HEPA filter with 100% fresh air supply all the time



Bathroom ventilation exhaust **should** pass through HEPA filter.

An anteroom is **not** required, **but** it is preferable if it is possible**.**

Negative pressure isolation room walls, floors, and ceiling surfaces **should be** easily cleanable and highly durable to withstand frequent cleaning and disinfection with an approved disinfectant



Monitoring of Airborne Infection Isolation

Monitoring of environmental conditions (pressure, temperature, ACH and humidity) **should** take place.

The pressure from the monitoring device installed at the entrance to the AIIR **should be** recorded daily in the log designated for that purpose by the responsible nursing staff in the department.

All HEPA filters are **changed** from 6 to 12 months, appropriate PPE measures should be taken, together with their disposal, as medical waste.

Availability and Functioning of Portable High-Efficiency Particulate Air Filter (HEPA filter)

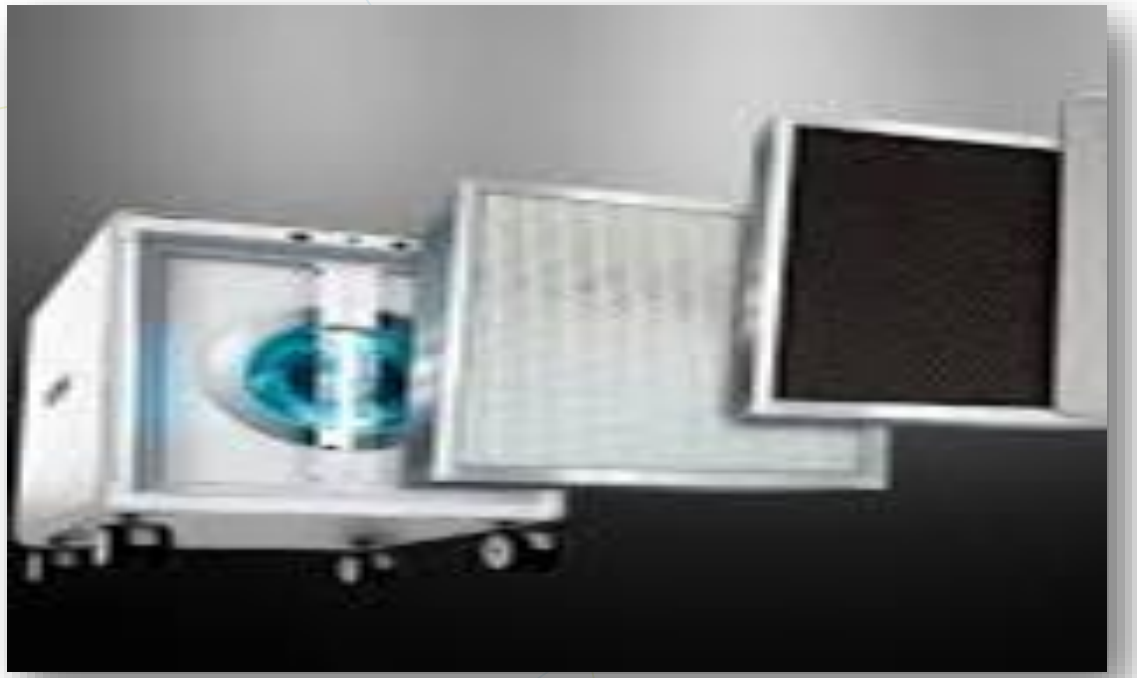
A portable hepa filter can theoretically remove at least 99.97% of dust, pollen, mold, bacteria, and any airborne particles with a size of 0.3 microns (µm) at a specified air flow rate.

Indications of Use:

- During aerosol-generating procedures (AGPs), e.g., nasopharyngeal swabbing in case of AIIR is not available.
- The HEPA filter is used to improve the air quality in infectious respiratory patients, waiting areas, and chest clinics.
- In the autopsy room if the AIIR is not available.

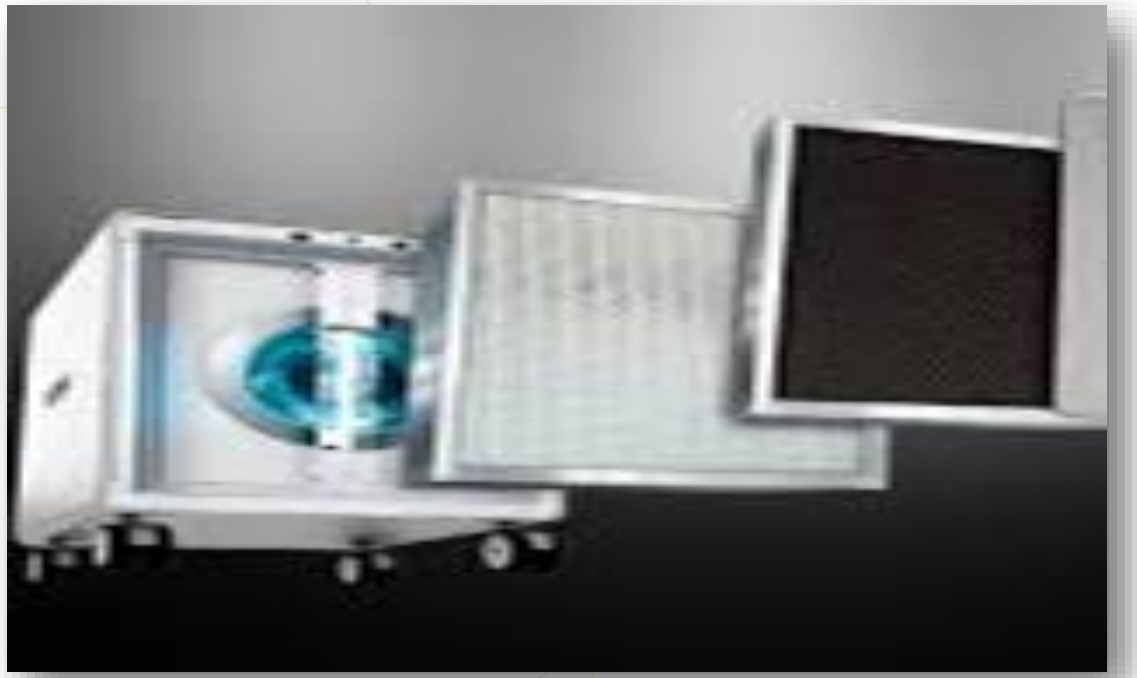
Special Considerations of HEPA Filter:

The portable hepa filter is not needed and is not a part of droplet and contact precautions.



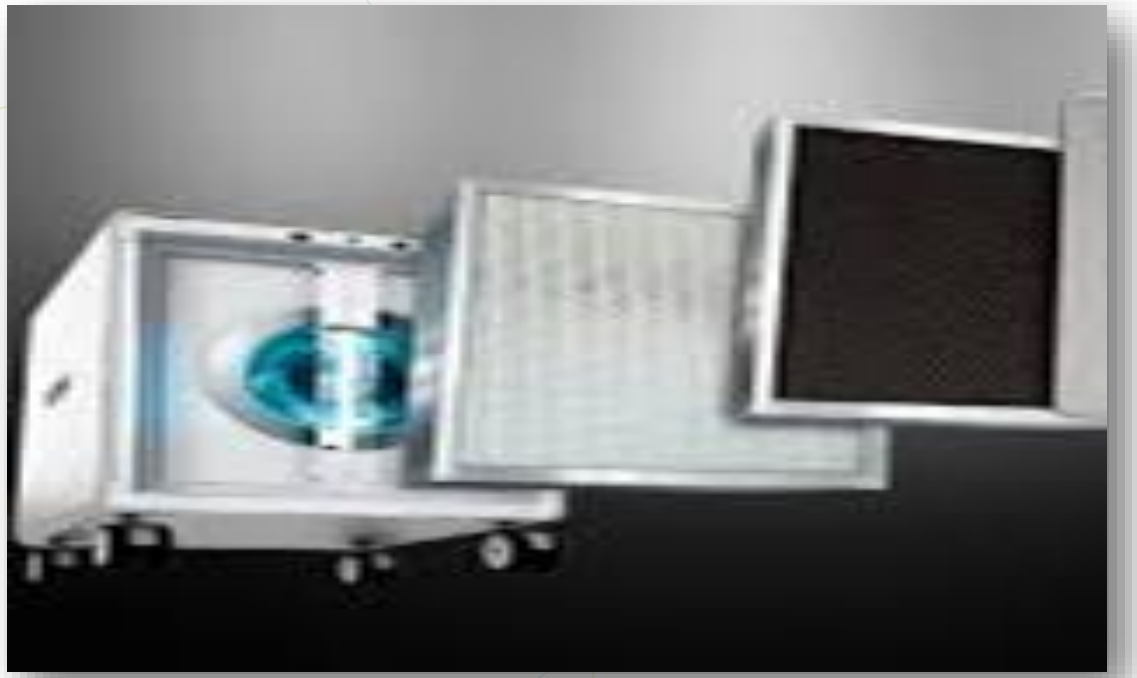
Special Considerations of HEPA Filter:

should be replaced according to the manufacturer's recommendations and replaced filters should be discarded as infectious medical waste.



Special Considerations of HEPA Filter:

The unit should be placed as close to the expected source of the contamination as possible to increase effective capture of the infectious/hazardous agents.



Availability and Functioning of Laboratory's Biological Safety Hoods

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Laboratory's Biological Safety Hoods

Hazardous biological material should be safely contained and/or removed from the laboratory to protect individuals and the environment from respiratory hazards.

Biological safety hoods (appropriately classified HEPA filters) must be used as per the MOH requirements.

Laboratory staff must process cultures that are suspected or confirmed to contain mycobacterium TB in a Biosafety Level 3 laboratory (as a minimum requirement).

The manipulation of infectious materials that may generate aerosols must be properly contained or performed in a biological safety cabinet (Class II-B).

Thank You